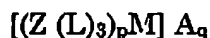


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# IN THE CLAIMS

1-46. (Cancelled).

47. (Previously added) Organometallic complex having the formula (I):



(I)

wherein Z is a carbon atom or R<sup>1</sup> - B fragment

p is 1, 2 or 3

q is 3-p and

A is a counterion

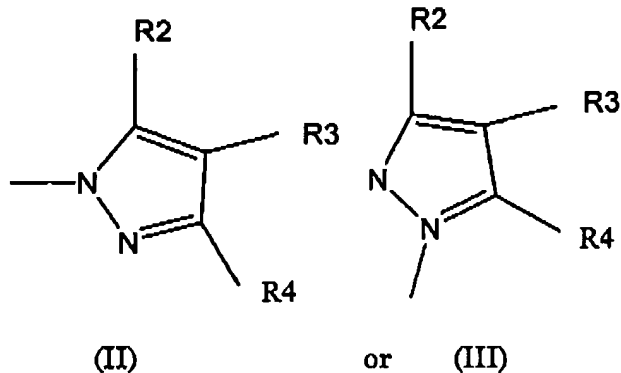
R<sup>1</sup> is: (i) hydrogen, aryl or aralkyl each optionally substituted

with from one to five halogen or C<sub>1</sub> to C<sub>6</sub> alkyl groups; or (ii) C<sub>1</sub> to C<sub>6</sub> alkyl,

C<sub>1</sub> to C<sub>6</sub> alkenyl or C<sub>1</sub> to C<sub>6</sub> alkynyl each optionally substituted with one or more halogen atoms

each L is covalently bound to Z and is independently selected

from a group of the formula (II) or (III)



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in which  $R^2$ ,  $R^3$  and  $R^4$  are independently selected from:

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- (i) halogen, cyano, nitro, sulphono, amino,  $C_1$  to  $C_6$  alkylamino,  $C_1$  to  $C_6$  alkylamido, carboxyl,  $C_1$  to  $C_6$  alkyloxycarbonyl, hydroxy,  $C_1$  to  $C_6$  alkoxy,  $C_1$  to  $C_6$  alkylcarbonyloxy,  $C_1$  to  $C_6$  alkylcarbonyl  $C_1$  to  $C_6$  haloalkoxy and hydrogen;
  - (ii) aryl or aralkyl each optionally substituted on the aryl ring or, for aralkyl, on the alkylene chain with from one or more of the groups mentioned under (i) above; ~~and~~ <sup>or</sup>
  - (iii)  $C_1$  to  $C_6$  alkyl,  $C_1$  to  $C_6$  alkenyl or  $C_1$  to  $C_6$  alkenyl or  $C_1$  to  $C_6$  alkynyl each optionally substituted with one or more of the groups mentioned under (i) and (ii) above;

$R^4$  and or  $R^2$  is  $-(CX_2)_nX$  wherein  $n$  is 0 or a positive integer from 1 to 6 and  $X$  is halogen; or  $R^1$  is orthodihalogenated or orthodiperhalomethylated aryl, optionally further substituted on the aryl ring; or

$R^2$  and  $R^3$  or  $R^3$  and  $R^4$  are linked so as to form a fused aromatic or non-aromatic ring system with the pyrazolyl ring of L; and

M is a trivalent lanthanide metal ion.

48. (Previously added) Complex as claimed in claim 47, wherein M is Tb, Ce, Eu, Er, Gd, Tm, Sm or Nd.

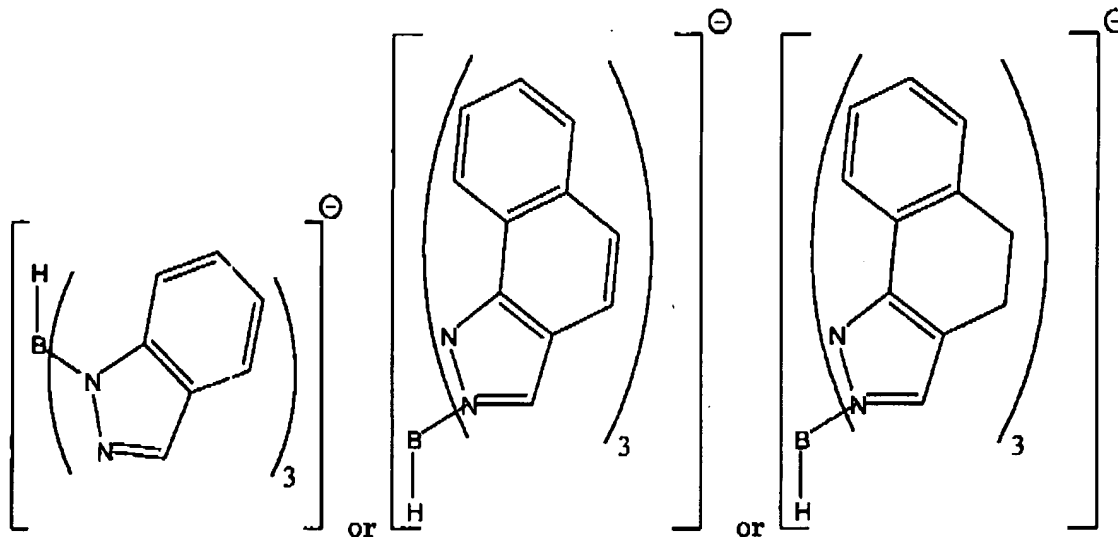
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49. (Previously added) Complex as claimed in claim 47, wherein  $R^4$  is trifluoromethyl.

50. (Previously added) Complex as claimed in claim 47, wherein  $R^3$  is hydrogen and  $R^2$  is trifluoromethyl.

51. (Previously added) Complex as claimed in claim 47, wherein Z is H-B.

52. (Previously added) Complex as claimed in claim 47, wherein  $ZL_3$  is



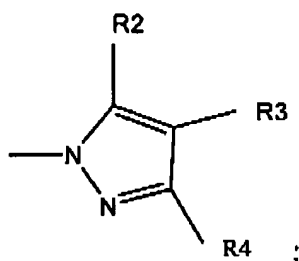
53. (Previously added) Complex as claimed in claim 47, wherein A is  $CF_3SO_3^-$ , halide, nitrate or perchlorate.

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54. (New) Complex as claimed in claim 47, wherein:

Z is H-B;

L is



M is Tb;

A is  $\text{CF}_3\text{SO}_3$ ;

X is halogen;

R1 is H;

R2 is  $\text{CH}_3$ ;

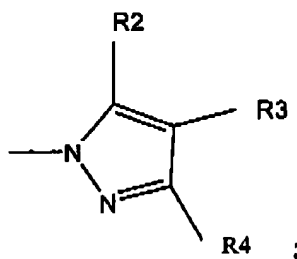
R3 is H; and

R4 is  $\text{CH}_3$ .

55. (New) Complex as claimed in claim 48, wherein:

Z is H-B;

L is



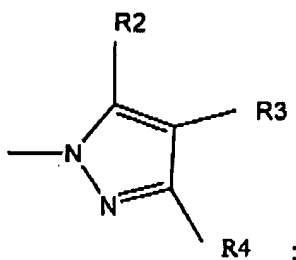
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M is Tb;  
A is  $\text{CF}_3\text{SO}_3$ ;  
X is halogen;  
R1 is H;  
R2 is  $\text{CH}_3$ ;  
R3 is H; and  
R4 is  $\text{CH}_3$ .

56. (New) Complex as claimed in claim 51, wherein:

L is



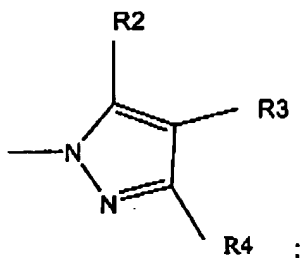
M is Tb;  
A is  $\text{CF}_3\text{SO}_3$ ;  
X is halogen;  
R1 is H;  
R2 is  $\text{CH}_3$ ;  
R3 is H; and  
R4 is  $\text{CH}_3$ .

57. (New) Complex as claimed in claim 53, wherein:

Z is H-B;  
L is

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E<sup>1</sup>  
Contd



M is Tb;

A is  $\text{CF}_3\text{SO}_3$ ;

X is halogen;

R1 is H;

R2 is  $\text{CH}_3$ ;

R3 is H; and

R4 is  $\text{CH}_3$ .